Saving the Green by keeping it Story and photos by

Sgt. 1st Class Bill Sutherland

Ecologists today will admit that the most serious problem facing the planet are the overwhelming accumulation of waste materials.

Ecologists agree that this rapidly increasing volume of waste critically impacts every country in the world in many negative ways.

When it comes to old building waste materials the U.S. Army Corps of Engineers, Europe District, agrees that old materials need to be recycled and put into a productive and environmentally friendly use.

The Corps has developed environmental solutions for Efficient Basing Grafenwöhr for this problem of recycling waste materials at constructions sites. The EB-G team's approach to the waste solution is through promoting ecology as its number one goal whenever possible.

"It's not only an urgent situation to the surroundings of this planet itself, but it's also threatening to society and is now an immediate problem that can be easily resolved environmentally," said Manfred Koenig, civil engineer, EB-G.

Koenig coordinates civil work for U.S. Army Corps of Engineers, Europe District, at Grafenwöhr, Germany.

> Koenig said that part of that urgent thinking of ecology has led to several changes at Grafenwöhr with the way construction waste is handled. And, according to Koenig, there are more changes to come.

Any waste materials produced from the construction process are being reused by converting them from a high cost liability that must be disposed of at great expense, to an end product of considerable value.

With major construction projects taking place at EB-G, recycling has become part of the environmental plan, a blueprint plan of sorts, for the U.S. Army Corps of Engineers, Europe District.

"For that reason, a total of 2 million euros are being spent by the U.S. to fund environmental



Waste materials are being converted into reusable resources. Normally disposing of these products comes at a high cost; this procedure allows use of an end product of considerable value.

compensation measures to support the Efficient Basing Grafenwöhr program," said Koenig. "Another major project includes a three mile road that leads to the new proposed Netzaberg housing area. The housing area is planned for 830 built to lease housing units," said Koenig.

To level out the area for housing, engineers have moved 130,000 cubic meters of pristine soil.

"This was taken from future Netzaberg housing community and reused as fill material for the new construction projects at our new housing area

Engineers move 130,000 cubic meters of pristine soil for future plans to build the Netzaberg housing community. Soil was reused as a fill material for other construction projects at Grafenwöhr, Germany.

on the Grafenwöhr post," said Koenig.

The road was carved out from a mountain side so Soldiers and their families will be able to access the new housing area. On that road, 20,000 cubic meters of demolished slab concrete from an existing wash facility were recycled and reused for sub-base material under other roads and parking areas. That asphalt waste is currently being used as sub-base for the road project connecting the Grafenwöhr post to the future Netzaberg housing community.

"Over 400 tons of polluted soil will be recycled and used as sub-base. Other projects to support the roads are 8,000 cubic meters of demolished concrete, which will be recycled and used as sub-base material under other roads and parking areas," said Koenig.

These projects are all in motion to accommodate new Soldiers arriving at Grafenwöhr.

"At EB-G there are seven major projects going on now to accommodate the first units coming to Grafenwöhr. Among those, two will be specifically for those units," said Walter Bogdanow, deputy area engineer, with Europe District's Southern Region. Bagdanow said the two buildings will be a company operations' building, and a vehicle maintenance shop and be used for the two battalions.

> Next to the housing area, surfaces have also been leveled and raked. **Preparations** are underway there to build two new schools: an elementary and a middle school.

"Both schools will house 1,400 students, plus ball and soccer fields and a youth

activity center is planned. The plan also calls for a child development center. Other projects include a new dining facility that will house 600 people at any given time and a new, larger physical fitness center. This costs 13 million euro and they are now being completed," said Bagdanow.

By using environmentally safe methods and reprocessing the materials, Grafenwöhr will divert waste which would otherwise have been sent to landfills, this in a time when landfills are already overfilled.

The environmental challenge is fully satisfied through the use of recycling technology. The major obstacle of overflowing and vastly limited landfills is removed, and the process becomes an extremely positive method to eliminate waste with this valuable development.

Costly waste materials have become cash assets and landfills are saved from massive depletion and overuse. The objectives have been achieved and the solution is here now in the form of simple, but proven, technology.